

Patent US101C2  
Attorney Docket: 612,404-244

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

**MICHAEL J. HELLER, et al.**

Serial No.: 09/128,718

Filed: August 4, 1998

For: METHODS AND APPARATUS FOR  
ELECTRONIC SYNTHESIS OF  
MOLECULAR STRUCTURES

Group Art Unit: 1631

Examiner: Marjorie Moran

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

01/31/2007 WASFAW1 00000023 502862 09128718  
03 FC:1806 180.00 DA

Sir:

In accordance with 37 CFR §§ 1.97 and 1.98, the items identified in this Information Disclosure Statement (“IDS”) are brought to the attention of the Office. The accompanying Form PTO/SB/08a provides a listing of documents that may be relevant to the subject application.

The items identified in this IDS may or may not be “material” pursuant to 37 CFR § 1.56. The submission thereof by Applicant is not to be construed as an admission that any such patent, publication or other information referred to therein is material or considered to be material (37 CFR § 1.97(h)), or even qualifies as “prior art” under 35 USC § 102 with respect to this invention unless specifically designated by Applicant as such.

**INFORMATION DISCLOSURE STATEMENT FILING PROVISION:**

This IDS is believed to be timely in that it is being submitted under 37 CFR § 1.97(b), that is

**CERTIFICATE OF MAILING**  
(37 C.F.R. §1.8a)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as First Class Mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit  
IR1:1067539.1

1-27-07

Denise Doss

Name of Person Mailing Paper

Signature of Person Mailing Paper

(1) within three months of the filing date of the application, which is not a continued prosecution application filed under § 1.53(d); or (2) within three months of entry of the national stage as set forth in 37 CFR § 1.491; or (3) before the mailing of a first Office action on the merits; or (4) before the mailing of a first Office action after filing a request for continued examination under § 1.114. Thus, no fee is required.

- However, if the undersigned is in error in this regard, Applicant respectfully requests that the Office consider this IDS as filed under 37 CFR § 1.97(c), if applicable, and charge the fee due under 37 CFR § 1.17(p) to the deposit account referenced below.
- However, if the undersigned is in error in this regard, Applicant respectfully requests that the Office consider this IDS as filed under 37 CFR § 1.97(c), if applicable, and a statement under 37 CFR § 1.97(e) is included below, thus no fee is required.
- This IDS is being submitted under 37 CFR § 1.97(c), that is after mailing of a first Office action on the merits, but before a Final Action under 37 CFR § 1.113 or a Notice of Allowance under 37 CFR § 1.311.
- The fee due under 37 CFR § 1.17(p) is submitted herewith.
- A statement under 37 CFR § 1.97(e) is included below, thus no fee is required. In the event that this IDS is not received before a Final Action or a Notice of Allowance, then Applicant respectfully requests that the Office consider the filing of these papers to be submitted under 37 CFR § 1.97(d) and charge the fee due under 37 CFR § 1.17(p) to the deposit account below.
- This IDS is being submitted under 37 CFR § 1.97(d), that is after a Final Action under 37 CFR § 1.113 or a Notice of Allowance under 37 CFR § 1.311, but before payment of the issue fee. A statement under 37 CFR § 1.97(e) is included below. The fee due under 37 CFR § 1.17(p) is submitted herewith.

**Statement Under 37 CFR § 1.97(e):**

- Each item contained in this IDS was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS.
- No item contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this statement after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 CFR § 1.56(c) more than three months prior to the filing of this IDS.

**PAYMENT AND/OR AUTHORIZATION TO CHARGE FEES:**

- A check in the amount of \$180.00 is enclosed for the above fee(s).
- Please charge \$180.00 to Deposit Account No. 50-2862 for the above fee(s).

The Commissioner is authorized to charge any fees required by the filing of these papers, and to credit any overpayment to O'Melveny & Myers' Deposit Account No. 50-2862.

Respectfully submitted,

O'MELVENY & MYERS LLP

Dated: 11/26/07

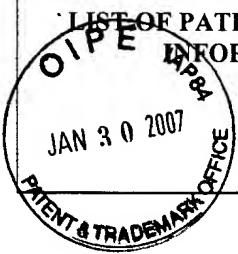
By: 

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Reg. No. 31,125  
Attorneys for Applicant

DBM/dnd

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LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S  
INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANT:  
Michael J. Heller et al.FILING DATE:  
August 3, 1998GROUP:  
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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBC LASS	FILING DATE

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBC LASS	TRANSLATION YES	TRANSLATION NO
	BY	0228075	7/87	EP (Dattagupta et al.)				
	BZ	2247889	3/92	GB (Stanley)				
	CA	WO95/07363	3/95	PCT (Konrad)				
	CB	WO90/01564	2/90	PCT (Adams et al.)				
	CC	WO89/01159	2/89	PCT (Cornell et al.)				
	CD	WO93/22678	11/93	PCT (Hollis)				
	CE	WO86/03782	7/86	PCT (Malcolm et al.)				
	CF	WO89/10977	11/89	PCT (Southern)				
	CG	WO88/08528	11/88	PCT (Stanbro et al.)				
	CH	WO92/04470	3/92	PCT (Stanley)				
	CI	WO98/51819	11/98	PCT (Heller et al.)				
	CJ	WO96/01836	1/96	PCT (Heller et al.)				
	CK	WO98/01758	1/98	PCT (Kovacs)				
	CL	2156074	10/85	UK (Palva et al.)				

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	CM		Abrams et al. "Comprehensive Detection of Single Base Changes In Human Genomic DNA Using Denaturing Gradient Gel Electrophoresis & a GC Clamp". <i>Genomics</i> , 7, 1990, 463-475
	CN		Anand and Southern "Pulsed Field Gel Electrophoresis," <u>Gel Electrophoresis of Nucleic Acids - A Practical Approach</u> , 2d. Ed., D. Rickwood and B.D. Hames (New York:IRL Press 1990), pp 101-123
	CO		Anderson and Young, "Quantitative Filter Hybridization," <u>Nucleic Acid Hybridization - A Practical Approach</u> , Eds. B.D. Hames and S.J. Higgins (Washington, D.C. :IRL Press 1985) pp 73-111
	CP		Bains, "Setting a Sequence to Sequence a Sequence," <i>Bio/Technology</i> , 10:757-758 (1992)
	CQ		Barinaga, "Will 'DNA Chip' Speed Genome Initiative?", <i>Science</i> , 253:1489 (1991)
	CR		Beattie et al., "Genosensor Technology," <u>The 1992 San Diego Conference: Genetic Recognition</u> , pp 1-5 (Nov, 1992)

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NB1:692585.1

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EXAMINER: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



## LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	CS	Beltz et al., "Isolation of Multigene Families and Determination of Homologies by Filter Hybridization Methods," <i>Methods in Enzymology</i> , 100:266-285 (1983)
	CT	Brown et al. "Electrochemically Induced Adsorption of Radio-Labelled DNA on Gold and HOPG Substrates for STM Investigations". <i>Ultramicroscopy</i> , 38, 1991, 253-264
	CU	Conner et al., "Detection of Sickle Cell $\square^3$ -Globin Allele by Hybridization With Synthetic Oligonucleotides," <i>Proc. Natl. Acad. Sci. USA</i> , 80:278-282 (1983)
	CV	Drmanac et al., "Sequencing of Megabase Plus DNA by Hybridization: Theory of the Method," <i>Genomics</i> , 4:114-128 (1989)
	CW	Drmanac et al., "DNA Sequence Determination by Hybridization: A Strategy for Efficient Large-Scale Sequencing," <i>Science</i> , 260: 1649-1652 (1993)
	CX	Eggers et al. "Biochip Technology Development", BioChip Technology Development, Lincoln Laboratory Technical Report 901, Nov. 9, 1990
	CY	Fiacabrinio et al., "Array of Individually Addressable Microelectrodes", <i>Sensors and Actuators B</i> , 18-19 (1994) 675-677
	CZ	Fodor et al., "Multiplexed Biochemical Assays With Biological Chips," <i>Nature</i> , 364:555-556 (1993)
	DA	Fodor et al., "Light-Directed, Spatially Addressable Parallel Chemical Synthesis," <i>Science</i> , 251:767-773 (1992)
	DB	Horejsi, "Some Theoretical Aspects of Affinity Electrophoresis," <i>Journal of Chromatography</i> , 178:1-13 (1979)
	DC	Horejsi et al., "Determination of Dissociation Constants of Lectin Sugar Complexes by Means of Affinity Electrophoresis, <i>Biochimica et Biophysica Acta</i> , 499:200-300 (1977)
	DD	Kakerow et al., "A Monolithic Sensor Array of Individually Addressable Microelectrodes", <i>Sensors and Actuators A</i> , 43 (1994) 296-301
	DE	Mathews, Kricka. "Analytical Strategies For The Use Of DNA Probes". <i>Analytical Biochemistry</i> , 169, 1988, 1-25
	DF	Palecek. "New Trends in Electrochemical Analysis of Nucleic Acids". <i>Bioelectrochemistry and Bioenergetics</i> , 20, 1988, 179-194
	DG	Ranki et al., "Sandwich Hybridization as a Convenient Method for the Detection of Nucleic Acids in Crude Samples," <i>Gene</i> , 21:77-85 (1983)
	DH	Saiki, "Amplification of Genomic DNA," <i>PCR Protocols: A Guide to Methods and Applications</i> , (Academic Press, Inc. 1990), pp 13-20

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	DI	Southern et al., "Analyzing and Comparing Nucleic Acid Sequences by Hybridization to Arrays of Oligonucleotides Evaluation Using Experimental Models," <i>Genomics</i> , 13:1008-1017 (1992)
	DJ	Strezoska et al., "DNA Sequencing by Hybridization: 100 Bases Read by a Non-Gel-Based Method", <i>Proc. Natl. Acad. Sci. USA</i> , 88:10089-93 (1991)
	DK	Wallace et al., "Hybridization of Synthetic Oligodexribonucleotides to $\square$ x 174 DNA: The Effect of Single Base Pair Mismatch," <i>Nucleic Acid Res.</i> , 6:3543-3557 (1979)
	DL	Washizu, "Electrostatic Manipulation of Biological Objects," <i>Journal of Electrostatics</i> , 25:109-123 (1990)
	DM	Washizu and Kurosawa, "Electrostatic Manipulation of DNA in Microfabricated Structures," <i>IEEE Transactions on Industry Applications</i> , 26:1165-1172 (1990)

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